ESO-1937

MANAGING ETHICAL ISSUES IN THE AGRICULTURE CURRICULUM

Thomas T. Stout

Prepared for a seminar on the title subject on April 22, 1992, in the College of Agriculture at The Ohio State University, Columbus 43210. Single copies may be obtained by requesting ESO-1937 from the Department of Agricultural Economics and Rural Sociology at the university.

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Thomas T. Stout**

A fable will illustrate the first dilemma that confronts a professor who would address ethical issues in an agriculture course: Let us say that a professor in a discipline called 'White' sees a useful opportunity for some interdisciplinary speculation. So he goes across campus to the Professor of Red, a strange to him, and proposes some hypothesis-testing (Figure 1). Now, those of you with experience in these matters can identify with the professor of White, and probably can forecast the likely outcome of this foray beyond the disciplinary boundaries. First, the professor of Red is more amused than excited by this outburst from White, which he regards as a sort of quasi-discipline. Second, the professor of Red understands that interdisciplinary work, like teaching, is not the buttered side of the academic bread, and he suspects, not unreasonably, that any professor of White too retarded even to know what's good for him probably lacks merit as an intellectual companion. (This serves further to fortify his suspicions about discipline White.) So he tells the professor of White (and he can't wait to relate all this to his own colleagues), "In Red, there really is no such thing as Pink, although I am gratified by your recognition that White is not as pure as your associates like to pretend". Third, and finally, you may have some advice for anyone who

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* (ESO-1937) This is a second approach to a paper first presented at a North Central Regional Teaching Symposium, "Strategies for Teaching and Learning," June 24-26, 1991, at Madison, Wisconsin. The content is based on experience with Agricultural Economics/Rural Sociology 110, "Socio-Economic Issues in Rural America," at The Ohio State University. This revision was prepared for a seminar addressing the title subject in the College of Agriculture, The Ohio State University, on April 22, 1992.

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wants to know, and it is that while interdisciplinary dabbling may be okay for professors, it is probably not okay for assistant professors, still earning intra-disciplinary spurs.

All this helps explain why Ag Econ/Rural Soc 110 at Ohio State, an entry level course with some ethics content is taught by Professor Stout, and why sensible assistant professors wouldn't touch the course with a ten-foot pole. AERS 110 is interdisciplinary.

But without any interdisciplinary blessing. The course is called "Socio-Economic Issues in Rural America" and it *is* cross-listed, but Ag Econ and Rural Soc are the same department, after all. And although the course dwells on current events and ethical issues, Ethics (capital E) is the property of other academic turf, the boundaries are patrolled, and nobody passes the checkpoints without proper credentials. Stout is not suitably certified in a subject called Ethics, origins of economics in moral philosophy being remote and insufficient. So, the word 'Ethics' does not appear in the course title. People who drive without licenses don't put signs on their cars.

Yet in a fundamental sense, in the broadest sense, a course like AERS 110 is profoundly interdisciplinary. Issues in agriculture that are contemporary lie at an interface between *SCIENCE and NONSCIENCE* (Figure 2). This turns out to be a very big thing for a class like AERS 110, this standing at the edge of Science and looking outbound, like tourists contemplating the oblivion of the chasm. Let's pause here, take long enough to absorb that view.

The impediments to mutual comprehension between Science and Nonscience are enormous. Science and Nonscience only sometimes share an alphabet, seldom a vocabulary, and each populates a universe of priorities that offer only an

indifferent regard for the other. What is of square-one importance to one may be a square-one rejection by the other. (In Science utilitarianism is all-important; in Nonscience it's just another viewpoint.) Science and Nonscience do not really communicate; they just converse.

For starters (to begin a recursive set of rounds) Science candidly acknowledges that it is not the Alpha and the Omega; that there are things Science cannot address (Figure 3). Science acknowledges Nonscience and accords it legitimacy. It is impartial, observing that some things are handled better by Nonscience and that other things are better done by Science. You win some, you lose some.

But the impartiality of Science is not the virtue of every scientist (Figure 4). We all have met the vanity of scientists about their Science; a vanity that acknowledges Nonscience but accords it a dubious legitimacy, treats it with detectable disdain, and imagines an uncluttered, utopian future in which Nonscience has disappeared.

To the people who populate the universe of Nonscience, scientists provide most of the identity for Science. When these people associate Science with the vanity of scientists, they resent that vanity and attribute it to Science. After all (they feel) most people cope and most people are not scientists, so Science must not be as great as it things it is (Figure 5). Besides (they think) Science itself has conceded all this non-measurement turf to Nonscience, and coping clearly means much more than narrow measurement. So maybe Science can either stay in its own backyard and leave my life alone, or it can just shape up if it wants to live in the same town with me.

Nonscience correctly recognizes Science as - by far - the major source of social change. Change storms in with no apologies, crashing through the

cultural verities, leaving a rubble of uncertainties, and from this rubble crawl all these unexpected, unwanted things. Nonscience knows that the storm is Science, feels obliged to step around the wreckage or try to clean it up, and decides that Science is irresponsible, self-serving, and biased, not just in its results but in its presumptions as well - and it tells it so.

How is this received in Science, which prides itself on what it regards as objectivity? Scientists are certified to do Science, after all, which is to say they are practitioners of and believers in a Method designed to measure (and to cast out all that cannot be measured), to distill data to its least ambiguous essence, to interpret the data and then subject the method and the interpretation to the scrutiny of suspicious critics - who will not accept results unless impelled to their acceptance by the intrinsic merit of the method. As the harvester winnows the chaff from the grain, so the whole purpose of Science is to winnow the falsity from the fact; in either case if the process cannot accomplish the task, there is no purpose to the process at all. To Science there is no accusation by Nonscience more grave than bias. It is an insult; it maligns the purpose, the very identity, of Science.

This has nothing and everything to do with agriculture. Agriculture is just where we happen to stand, a footnote, this or that case in point to illustrate the larger confrontation. What we are witnessing in agriculture is nothing less than the turmoil of cultural change; a continuing renaissance debate. "The major advances in civilization," said A. N. Whitehead, "all but wreck the societies in which they occur." Indeed so. Relationships between material and non-material culture are being contested, as always, and agriculture is getting mentioned in the debate. This is the setting in which AERS 110 exists, a participant and an interpreter in this debate.

It would be nice if there were more students in this class from outside the College of Agriculture, but there are very few. (It takes courage, if you are an undergraduate outsider, to sign up for an Ag class and then persuade friends that your head is okay.) After all, most of the criticisms of modern agricultural methods come from outside agriculture and outside Science. To a Science audience, Nonscience needs spokesmen who are intelligent, informed, thoughtful and articulate. But without persuasive representation to make it real, Nonscience doesn't fare very well among aggies. Aggies are Science-saturated; they believe in Science. They tend to be impatient with criticism from outside Science and outside agriculture.

Aggies are sensible and pragmatic people who have filtered their view of reality through a love of rural life. Many of them come from farms; they are familiar with the details of farm life, and they subscribe to the priorities and practices that make up the daily and the seasonal round. They grew up instructed in honesty and suppose they can recognize dishonesty when they see it. They are especially sensitive about animal and food safety issues. They have difficulty being graceful with criticism they regard as leisure-class ignorance or vandalism masquerading as social concern or moral indignation. They resent advocates for change who would themselves be unaffected by the changes they demand from others. They would applaud H. L. Mencken's definition of a liberal as "one whose interests presently are not at stake."

So it would help if there were effective spokesmen in class for Nonscience, spokesmen who could explain that when they accuse Science of bias they do not mean that scientists intentionally falsify. They mean that Science so worships its objectivity that it is indifferent to creativity, even in its own insights. They mean that when Science insists it is method ever

and philosophy never, it forgets that Science is founded on postulates that are beyond the capacity of Science to prove or disprove. They mean that the justifications for doing Science at all are themselves value-laden and debatable, yet scientists treat utilitarianism as if it were the final word of God. They mean to make clear that there is a perspective that enfolds even Science, where the questions are better than the answers.

Well. That's pretty heady stuff for us aggies. What's it got to do with all this bitching about sows in farrowing crates? Good question, good summary! Here is AERS 110, right in the middle, right between the vision and the mud, and what is a great turn-on to some in the class is a turn-off to others. Any questions? Yes, what *time* is it?

So how to proceed? I am not the one, I hasten to confess, to urge instructions on you; it would be like selling you the Brooklyn Bridge. But like Daniel Boone, who claimed he never was lost in the wilderness, though now and then confused for weeks on end, I have learned some things while wandering in the woods.

First - It is of course true that Ethics with a capital E involves the formal study of rules of conduct and moral judgment, and you would not get very far into it before you would concede the legitimacy of credentials and be asking for help. But you should be able to manage with no great difficulty an array of issues with (small e) ethical content in a subject area where you do have credentials. If you are a scientist with an inventory of probabilities - commonly called facts - that bear on the issues, so much the better. Science and Nonscience alike concede the legitimacy of facts that are accurate over beliefs that are not, and, while numbers alone will not dislodge beliefs that

are beyond measurement, they contribute to clarity and can expect to be heard (p. 19).

Second - You need contacts in other disciplines because you will read widely in Philosophy, Sociology, English, History, Political Science. But you'll be at sea and you won't know how to navigate. You'll make all these landfalls that thrill you but you won't know whether they count for anything or not. So you have to ask. I was forty before I encountered Frederick Jackson Turner and I was enthralled. But I had to ask and be told that, yes, in History, the Frontier Thesis is indeed a major landfall.

Third - You must find a balance between the vision and the case because either the esoterica or the caged layers will be putting people to sleep. Each advocate needs to realize that no matter which end of the funnel he thinks is important, the funnel works because of the other end (and that fellow visionaries for your one-ended funnel are good company but no help.)

Fourth - I am anxious to create some order, quickly, out of a chaos of words and concepts. I issue an annotated vocabulary and see that students learn to use it (sample, p. 18). I construct paradigms like Figure 6, which may not be maps-to-scale but they help us through the woods. I assign readings, test them, and then prepare summaries for students to use in assessing arguments and positions they are obliged to evaluate (p. 19).

Fifth - Early on I jar students with the cost of their own convictions (p. 16), repeatedly say things like "the trouble is not so much what folks don't know as it is what they do know that isn't so" (Will Rogers); loosen their grip on their own certainties; heighten their awareness of the compelling effects of beliefs and values; make them realize that viewpoints they dislike may be more likely to prevail than their own (p. 20). So loosen up.

Get ready. (I lose students here. They turn off. They continue to put up with Prof. Stout only for the sake of the final.)

Sixth - Constantly, I emphasize that there is a meeting ground, and that the means by which it can be found already enjoys an honorable existence in all the disciplines, no matter how different the languages they speak. We examine the steps of the research method, for example, and see that the norms of Science are the same as the norms of good moral argument in Nonscience; that both, in the final analysis, when they are translated, are sharing the same priorities and saying the same things (MC 5, p. 24).

Seventh - I am enthused about tactics and topics that have evolved over the years. You'll find other samples in the appendix. For example, you notice that everything is fluid, cluttered with memos, undergoing change; you see that handouts have numbers to key them to the course outline and the files; you find that essay questions are treated as take-home exercises to complete before the rest of the exam in class; and that afterward I distribute as learning guides what I think would have been good essay responses. I would be very pleased to visit with you by phone or mail, and trade ideas, and weigh the pros and cons of some of the things that both of us are doing.

Eighth - In the broader social sense, it is true that treating Ethics (capital E) is unavoidable. It is the essential stuff of society; perhaps a sensitivity to ethical considerations is part of the hard-wiring of the human animal. But my focus here is the ethical issues related to the subject you teach. I think you will find most of these lie in externalities - the side effects - of technologies emerged from your science. People want reassurance - guarantees, please - that a technology can hit a target without splashing the bystanders.

Is this because the media, always mining the frequency distribution at its tails, has fostered a distorted view of what to expect from science? Perhaps. But maybe it is that, as technologies proliferate, and become more sophisticated, and externalities more damaging, technology-sophisticated generations want better information about probabilities. Whatever. They are saying things out on the street about your science. Better get them to come to your classroom and say them to you.

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Figure 1

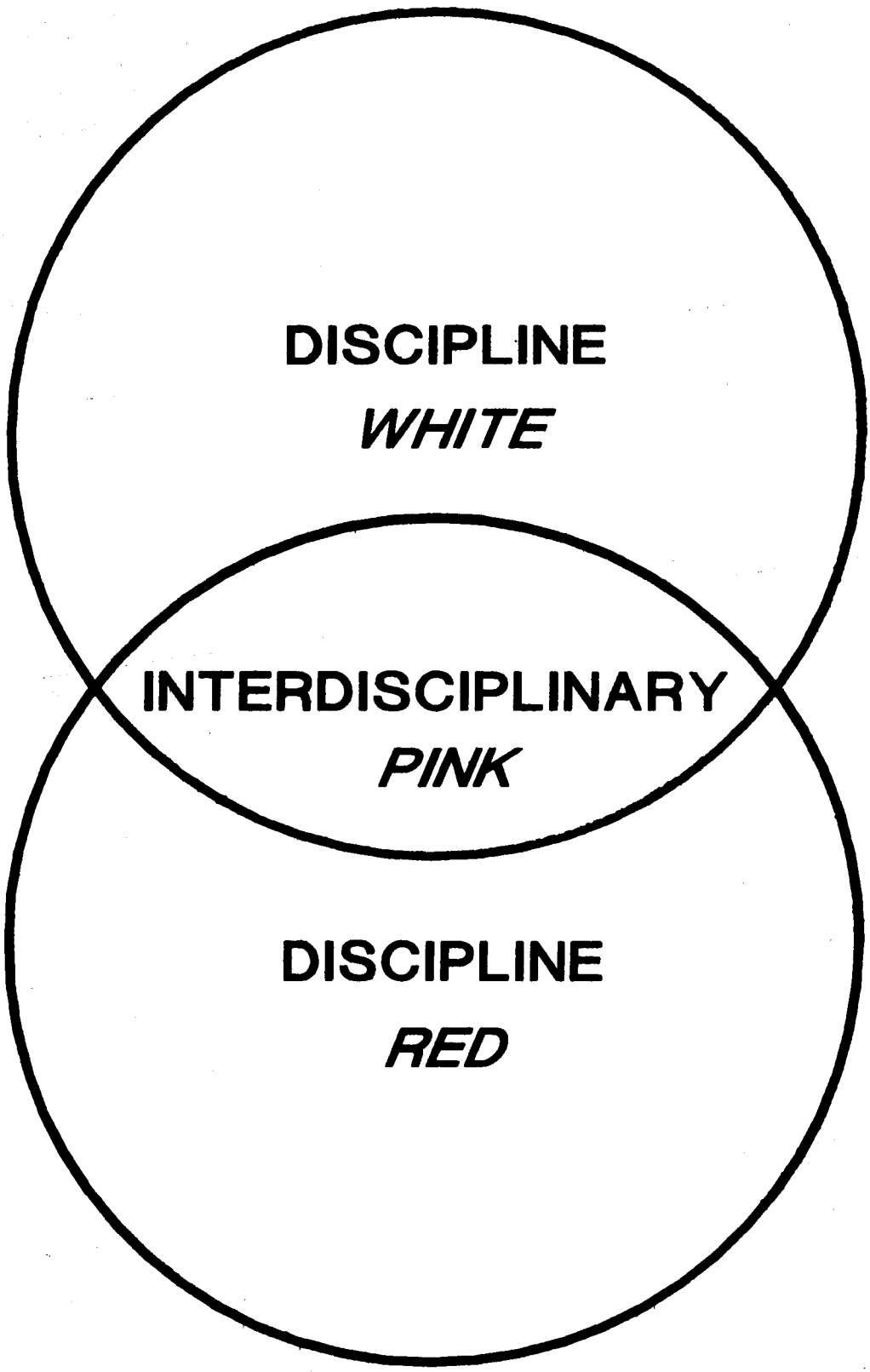


Figure 2

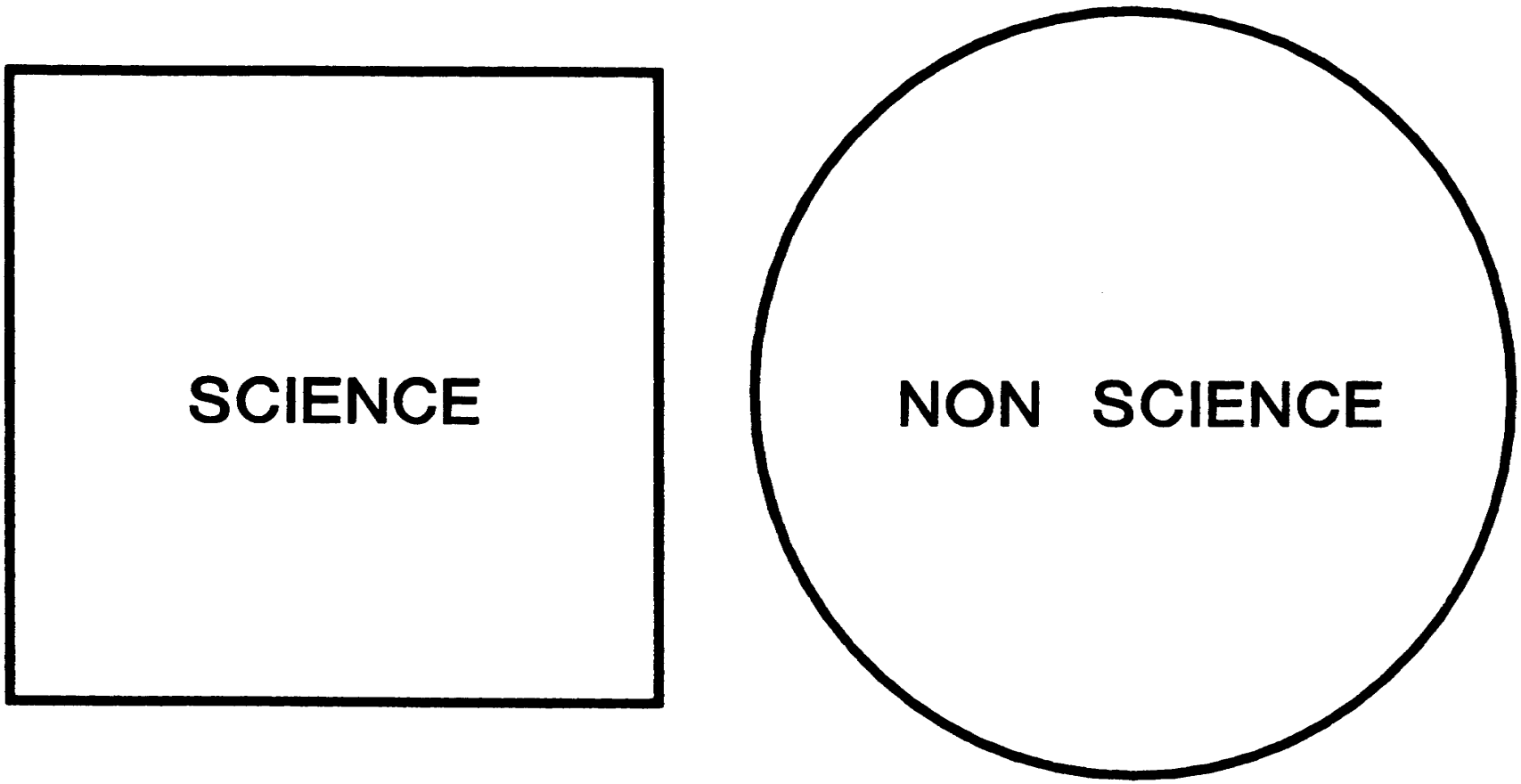


Figure 3

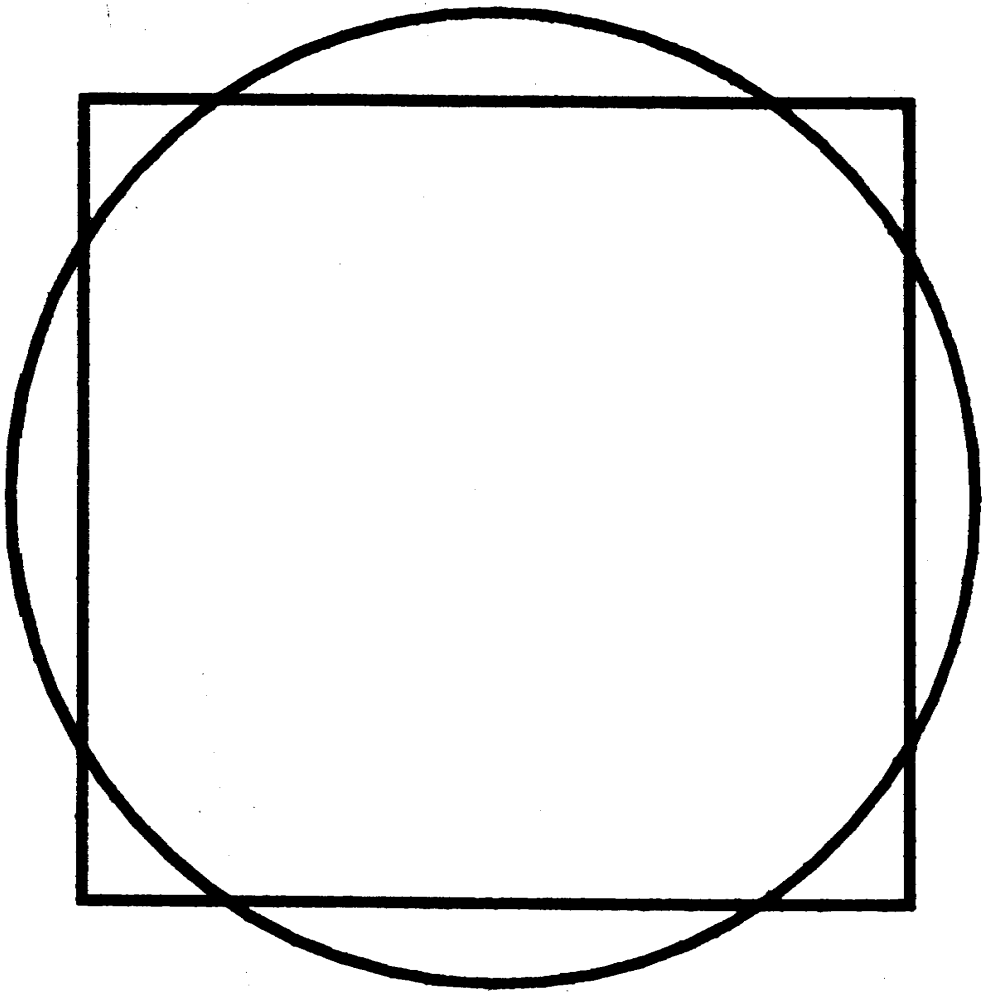


Figure 4

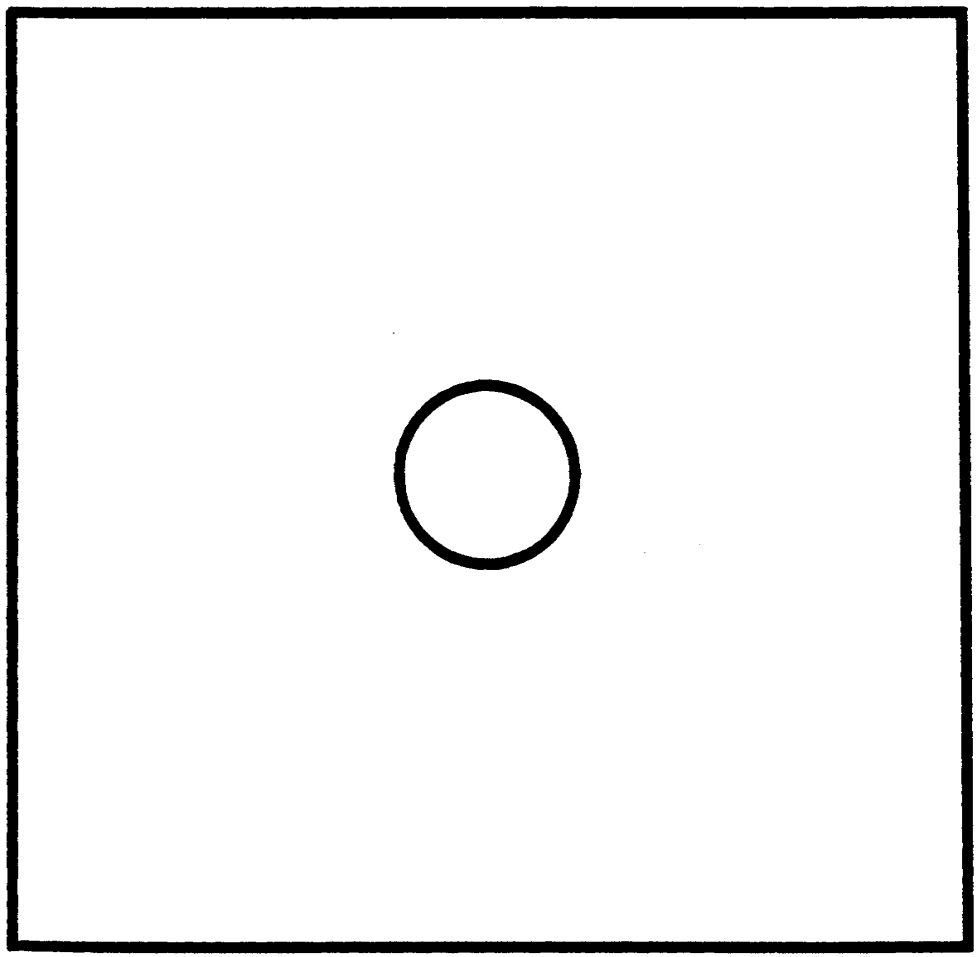


Figure 5

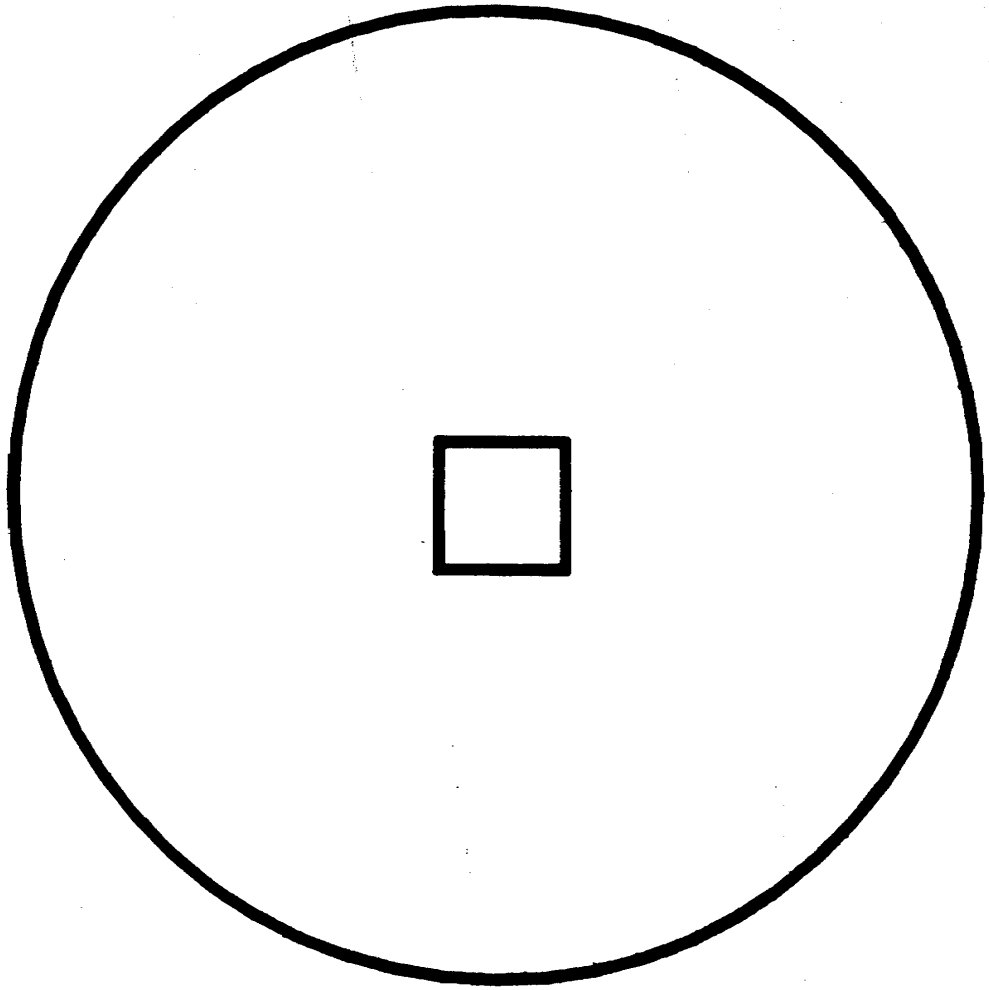
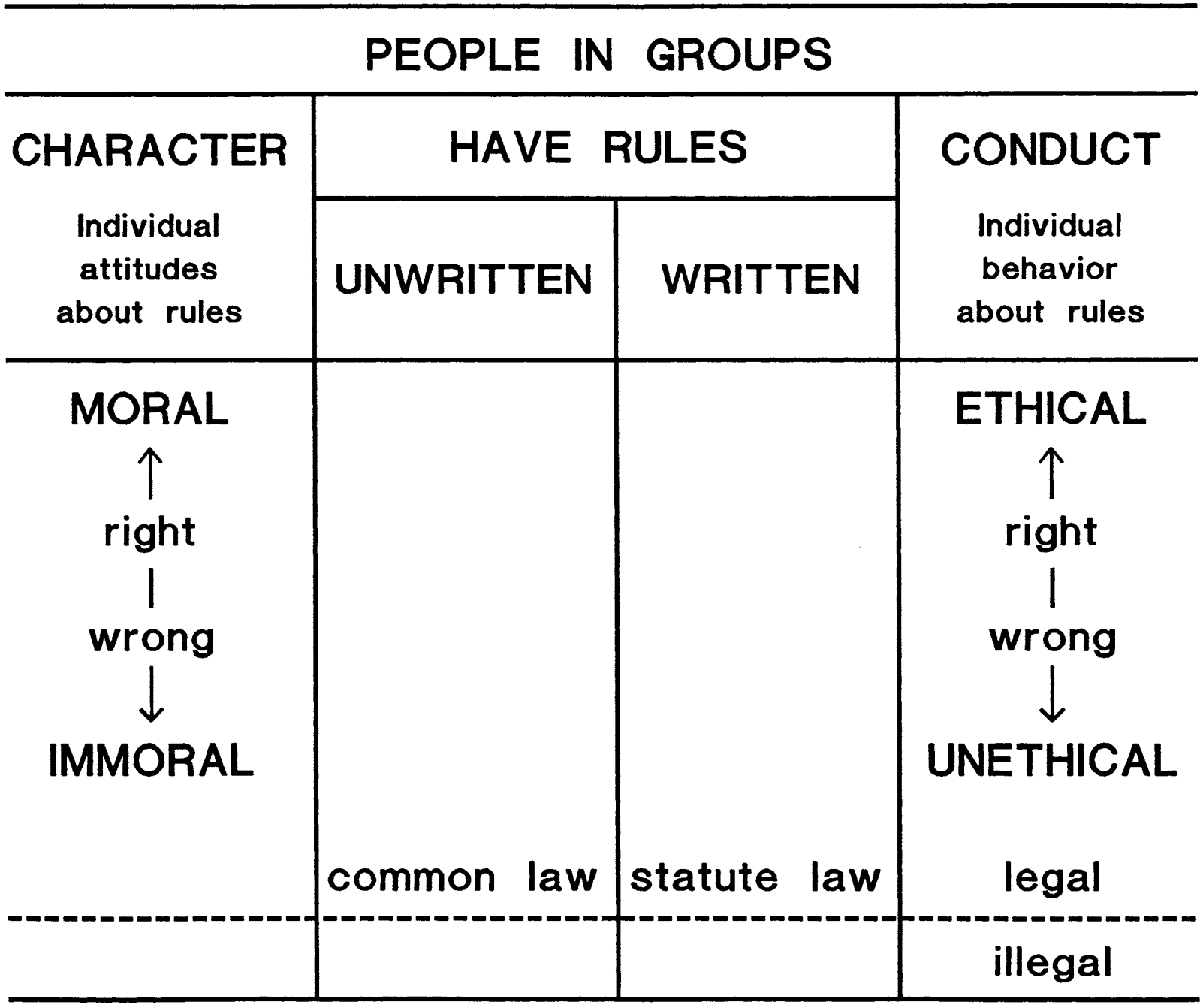


Figure 6


PEOPLE IN GROUPS
CHARACTER
Individual attitudes about rules
HAVE RULES
UNWRITTEN
WRITTEN
CONDUCT
Individual behavior about rules
MORAL
right
wrong
IMMORAL
ETHICAL
right
wrong
UNETHICAL
common law
statute law
legal
illegal

THE MOUNTAIN TERRORIST: A THOUGHT EXPERIMENT IN ETHICAL DECISION MAKING*

Instructions: The purpose of this thought experiment is to demonstrate that ethical conflict is not only a case of different people having different moral values; individuals can be torn by different concepts of moral value.

Read the thought experiment carefully. If you have any questions, ask them publicly so that the entire group will have the same information. After you have thought about the problem, write a 2-3 sentence answer to the question, "What will you do?" on a piece of paper with your name.

You are sitting at a mountain cafe in a small village, somewhere in the third world. It is a beautiful day, blue skies and not too cool. You are enjoying some wine or beer, perhaps. Suddenly, the peaceful atmosphere is shattered by the sound of military vehicles and shouts, punctuated by short bursts of automatic weapons fire. A squat, bearded man in camouflage attire enters the cafe accompanied by a group of lieutenants. In the street, you see that the entire peasant population in the village is being herded into a group in the town square. Just as you realize that these men intend to murder the entire village, the leader notices you sitting at your table. He walks over to you, flicks the long ash from his cigar, and looks you slowly up and down.

Finally, he smiles and says, "You must be a Buckeye! I like Buckeyes; you can live."

A feeling of relief sweeps over you, and you realize that this man who is about to order the murder of innocent peasants (including children) wants to strike up a conversation. Your mind goes back to an ethics class in college, and you protest, "You can't kill the whole village! It would be wrong!"

The terrorist leader frowns and rubs his chin. Finally he speaks, "I don't know, you may be right. Buckeyes are pretty smart." After a pause he turns to his lieutenants and says, "Change of plans. Just pick out twenty and kill them; teach the rest a lesson."

Emboldened by your success, you plead again, insisting that the murder of even twenty peasants would be a heinous moral wrong. The leader frowns again and confers quietly with his lieutenants. Finally, he takes his pearl-handled revolver from his belt, empties the chamber, and loads one round. He hands the gun to you and says, "Here's my last deal. Take the gun, kill one peasant, your choice, and we go away happy. Otherwise we kill twenty. You try any funny business, and my men have orders to see that everyone dies. You too."

What do you do?

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* Freely adapted from a thought experiment by Bernard Williams and employed as a teaching aid by the National Agriculture and Natural Resource Curriculum Project at a workshop devoted to "Ethical Aspects of Food, Agriculture, and Natural Resource Policy," University of Kentucky, Lexington, June 14-26, 1987.

RESPONSES TO MOUNTAIN TERRORIST

	1988	1989	1990	1991
		(percent)		
1. Shoot a Peasant:				
- but old, sick, outcast, or otherwise impaired	18%	20%	19%	32%
- but try to just wound a healthy one	6	7	4	--
- but use a lottery or volunteers	6	20	8	9
- but try to get someone else to do it	6	--	4	--
- no buts; get on with it	12	7	27	9
2. Shoot self:(or volunteer to be the victim)	6	13	8	23
3. Refuse to Comply:				
- hope he's bluffing	6	7	--	--
- 20 dead is better than all (I won't do it!)	6	--	4	6
- return the gun (I couldn't live with myself)	6	--	--	--
- shoot the leader or take him hostage	6	--	12	6
4. Evasion of Issue:				
- just don't know	6	--	--	--
- still try to talk him out of it	12	20	12	12
- it would be better to shoot one but I couldn't do it.	6	7	4	3
	100%	100%	100%	100%
Total (including multiple) Responses:	17	15	26	32

VOCABULARY (a sample)

Society - The largest social grouping having permanence through generations of people who adhere to a common culture, tradition and value system.

Culture - Social identity; the sum total of ways of living built up by a group of human beings forming a society, and which is transmitted from one generation to another.

Mores - Folkways that are considered conducive to the welfare of society and so, through general observance, develop the force of law, often becoming part of the formal legal code.

Ethics - (1) The study of standards of conduct and moral judgment; (2) about morals; (3) the system or code of morals of a particular philosopher, religion, group, profession, etc.

Moral - Principals of right and wrong. Good or right in conduct or character.... based on strong probability. Syn - righteous, ethical, virtuous, probable, well-conducted. (What works, right?)
(So. Ethics is a study of conduct upon which moral judgment (which is relative) is rendered about good or bad or right or wrong. What is judged to be right or good or virtuous, righteous, ethical, probable or well-conducted..... is moral.)

Law - All the rules of conduct established and enforced by the authority, legislation, or custom of a given community or group.

(Laws, it is worth reflecting, do not prescribe ethical or moral standards, only minimums.)

(So. Given the relativity of standards of conduct there is relativity also associated with rules of conduct. We may judge conduct to be 'ethical' - in accordance with the (written or unwritten) rules; we may judge conduct to be 'moral' or 'immoral' according to whether we assess character to be disposed to honor or dishonor the rules; we judge conduct to be legal or illegal if it does or does not meet the minimum expectation of the (written) rules.)

AERS 110-8
Earthbound

MORAL ARGUMENT

I. SOME WAYS NOT TO ANSWER MORAL QUESTIONS:

(a) Personal preferences do not answer moral questions. (That I prefer Angus cattle over Hereford does not mean that you should also.)

(b) Personal feelings do not provide answers to moral questions (That you feel sorry for caged layers or crated calves does not mean that I should feel sorry for them too.)

(c) Thinking so does not make it so (That I think strict handgun registration will not reduce violent crime does not make you wrong (or right) if you think it would.)

(d) Majority opinion is just more of (c) above. (There may be strength in majority opinion but not necessarily truth. Perhaps most high school graduates think college students are wasting their time on more education.)

(e) Moral authority lacks universal authenticity. (To say that God or the Bible or the Pope decrees a certain conduct invites rebuttal. Are these sources authorities? If so, what suggestions do they have for this particular issue, e.g., preservation of the Whooping Crane?)

In short, you cannot argue that something is morally right (or wrong) because

You like it. You feel it. You think it. Majorities go for it. The Bible says so. Good moral arguments avoid these flaws.

II. THE IDEAL MORAL JUDGMENT: (An ideal moral judgment must meet at least these requirements, and a good moral arguement should strive toward them.)

(a) Conceptual clarity - What is the issue, precisely? Is it, for example, animal rights, or is it animal welfare, and if there is a difference here, just what is that difference?

(b) Information - What are the facts? Does smoking in fact cause lung cancer, or is it just associated with it? (Similar to above, isn't it?)

(c) Rationality - Argument must be logical, internally consistent, containing no logical contradictions. None of this 'Do as I say, not as I do.'

(d) Impartiality - Avoid prejudice or bias, concede a just and similar treatment in all similar cases. Must we treat animals as we treat ourselves? Can we treat animals differently than we treat ourselves?

(e) Coolness - Is emotion a reliable guide to choosing what is 'best?' If not, then subdue it lest it impair your rationality.

(f) Valid moral principle - The goal is to make not only a correct argument, but also for the correct reasons concerning the behavior of normal human adults (moral agents).

CULTURAL CHANGE

Two hundred years ago the values of individualism, independence and equality were self-evident. The charter documents say so. Private property (mostly land) and private enterprise were manifestations of these beliefs, and they served a democratic political need for a broad and vested middle class. They were also necessary, because there was no public sector capable of meeting the public need. At the frontier and on self-sufficient family farms the utility of these beliefs was obvious. If you needed a helping hand, you looked to the one at the end of your arm.

One hundred years ago American industrialism had won the Civil War (about it) and it was beginning to exhibit troublesome monopolistic tendencies that were translatable into political power. But farm employment still represented more jobs than all non-agricultural employments combined, and this rural majority still held sufficient political power to accomplish its local objectives and any broader goals around which a regional or a national agrarianism could coalesce. Agriculture dominated both houses of Congress, although industrialism had learned to manage its necessary political requirements.

Today the country is industrial and urban and the world is crowded. A small U.S. minority lives on farms. Two percent of the public owns real property once owned by a political majority, but the ownership no longer serves the original political purpose. A century of urban living has produced a deep appreciation for the greater utility of interdependence over independence, an acceptance of the rewards for pluralism over individualism, and an understanding that complexity is better served by a pecking order than by equality. (Besides, it is equity that is important; equality, of itself, has little to recommend it.) The facts of urban life have changed attitudes and beliefs, redefining the pre-industrial priorities.

My survival depends upon your responsible performance. Your right to be left alone to your preferences is less important than your accountability to me that the way you manage your private enterprise is not harmful to me. Farmers do not farm for themselves; each serious farm has a thousand urban dependents. A burgeoning urban population takes steps to assure that its supply lines to the hinterlands are reliable and secure. The supply lines tap essential natural resources which support the urban multitudes. There can no longer be an automatic presumption that their security and reliability must be entrusted to a small minority whose only real concern is profit.

Not surprisingly, 200-year-old values that still provide verities for a waning rural culture seem charming but naive and mildly obstructionist to a restive urban majority. It is idle to accommodate these relics of a distant past if their main effect is only to compromise the fundamental needs of an enlightened urban public.

Ye write... Does reflect bad fundamentalism but is too sarcastic

Name_____
Midterm Examination
February 8, 1991 (return 2-5-91)

- Agricultural Economics/Rural Sociology 110 -
SOCIO-ECONOMIC ISSUES IN RURAL AMERICA

Frederick Jackson Turner's Significance of the Frontier in American History, his "frontier thesis," argued the uniqueness of the American character which, he said, was forged at the frontier:

(a) List as many of these unique attributes of character that you can find Turner specifically mentioning (4 points).

(b) These attributes were brought forth at the frontier because: (4 points).

(c) This frontier experience had a permanent (rather than temporary) affect on the American character because the frontier expeience was: (4 points).

(d) What, according to Turner, is the relationship between the frontier and farming? (3 points).

END

46/13.5

Name Key Row

Midterm Examination
February 8, 1991

- Agricultural Economics/Rural Sociology 110 -
SOCIO-ECONOMIC SYSTEMS IN RURAL AMERICA

Short Answer (30 percent)

Earthbound (15 points) - already completed

Turner Frontier Thesis (15 points) - already completed

Vocabulary (10 percent)

1. Belief Conviction of the truth of something; a state or habit of mind in which confidence is placed in something which, in fact, may not be as it is perceived to be.

2. Interpretation Learning, absorbing new facts, placing them in a perspective of their relationships to other facts.

✓ 3. Provincial Lacking in perpective and awareness of complex relationships outside a narrow, familiar setting; limited to one or few local references groups, rustic.

4. Sociology Concerned principally with the data and scientific methods to deal with current problems of people in group relationships.

5. Mores Norms that may often be enforced by laws, and associated with punishments when they are violated. Examples appear in social contracts, morals and ethics.

6. Cosmopolitan Membership in many reference groups; open-mindedness about ideas or lifestyle; free from commitment to particular interpretations.

7. Economic man Careful or thrifty in the management of resources; maximizing satisfaction by maximizing monetary reward.

8. Industrialism The end result of social organization in which large-scale industries often dominate social and economic issues.

9. Value Estimated or assessed worth, proper price; a consequence of competing uses for scarce and useful resources.

✓ 10. Values Individual or collective assessments about what is proper in the sense of roles, rights and responsibilities in a given culture.

True-False (20 percent)

F 1. Perhaps the most basic human need (according to Maslow) is physical safety, upon which all other needs and aspirations depend.

T 2. Perhaps the most basic bond of human social organization is equity, upon which the terms of individual membership in the group are built.

T 3. Most people probably conduct themselves from day to day more on the basis of beliefs than on facts.

F 4. Paarlberg argues that the best public policies are the ones that have been dominated by one clear category of concern (like ethics, for example) rather than by some messy political process that tries to compromise concerns that are fundamentally contradictory (like ethics vs. economics, for example).

T 5. The position of the City Council in the Chatham River case was essentially utilitarian (in a philosophical sense).

T 6. The 'Mountain Terrorist' exercise serves to demonstrate that realities as we find them often force us to choose between conflicting values. Thomas points out that this is the rule rather than the exception in progressive societies; it is what fuels cultural change and cultural lag.

T 7. In production agriculture a term has been coined for those elements that choose technology over tradition and set financial return above any other kind of reward - 'venture agriculture.'

T 8. Perhaps the Amish provide a good illustration of refuge agriculture.

F 9. Probably the most nonconsequentialist participants in the Chatham River debate were the farmers ('riparians').

T 10. If people are totally ignorant of what the facts really are or how they work and what they lead to, they must necessarily depend on other means of coping, such as community beliefs and values.

T 11. Among the postulates of science is the affirmation that facts work better than beliefs and that, given the choice, people choose facts as opposed to beliefs that are shown (by facts) to be erroneous.

T 12. Rogers says, in essence, about innovation, that if the facts are simple and obvious people willingly make the switch, but if the facts are obscure and difficult to master, people tend to stick with what they already know or think they know.

T 13. Cochrane says, in essence, 'that might be true, but in farming the choice is get on board (adopt), or get run over (bankruptcy).'

F 14. Moral arguments are soundest if they are built upon the personal convictions of persuasive advocates.

F 15. Science, being based on sound convictions and sound methods, produces the soundest moral consequences.

F 16. Meyer (speaking of small farmers as opposed to large farmers) says that they are more likely to be liberal than conservative.

T 17. Rogers would agree that, whether an innovation is simple or complex, it is more likely to be adopted quickly if it does not conflict with existing beliefs or methods.

T 18. Cultural lag tends to occur when there are conflicts between material and nonmaterial culture. Usually we think of material inducements that threaten nonmaterial commitments. But it could work the other way around. Nonmaterial criticisms of agriculture could be resisted because they threaten material commitments.

T 19. Given the Cochrane argument, one could suppose that the century-old willingness of the public to invest (tax dollars) in education that introduces science to agriculture (facts vs. beliefs; technology vs. tradition) was motivated by a realization that the public would become the main beneficiary, even if most farm people rejected science and stuck to tradition.

T 20. But these days public criticism of agriculture seems directed more to adopters than to resisters, as if the science they paid for has led to such a narrow preoccupation with profit that it is being too destructive to any cultural values that stand in its way.

Multiple Choice (30 percent)

D 1. The concerns of the Friends of the Chatham River were expressed in ethical terms that might best be described as (a) utilitarian; (b) atomistic; (c) deontological; (d) holistic.

A 2. Moral agents, according to Earthbound, include: (a) adults; (b) children; (c) domestic animals; (d) all of these.

D 3. Philosophy insists on correct logic in progressing toward a conclusion. Science agrees but requires something additional, which is: (a) objectivity; (b) hypothesis; (c) method; (d) measurement; (e) all of these.

C 4. Much of the metaphysical debate between science and nonscience seems to center on the relevance or irrelevance of: (a) logic; (b) method; (c) measurement; (d) commitment.

D 5. To be factually correct, conceptually clear, impartial, and dispassionate, describes characteristics of which of the following: (a) good science; (b) good philosophy; (c) good moral argument; (d) all of these.

C 6. The justification of science and scientific progress tends to be expressed most frequently on what ethical grounds: (a) morality; (b) deontology; (c) utilitarianism; (d) holistic.

D 7. When technology improves productivity ratios, which of the following occurs: (a) output increases faster than input increases; (b) output can increase without increasing input; (c) output can stay the same when input is decreased; (d) all of these; (e) none of these.

D 8. Rogers would agree that which of the following serves best to describe one who is quick to adopt new innovation: (a) provincial; (b) insular; (c) conservative; (d) cosmopolitan.

B C 9. Cochrane would agree that agricultural adopters of innovation are motivated to: (a) increase product prices; (b) cut production costs; (c) increase output; (d) all of these.

D 10. In the mid-1980's, all of the net profit to agriculture was earned by about what percent of all farms: (a) about 70; (b) 50-60; (c) 30-40; (d) under 30.

✓ C 11. Of the several factors (inputs) that generate agricultural output, most of the increased productivity of the past half-century probably is due to increased:(a) land; (b) labor; (c) capital; (d) management.

C 12. Why do you suppose there is such a brisk market for farms that don't make money: (a) people suppose that better management will turn a profit; (b) people suppose that the agricultural economy will turn around and profits will return; (c) rural living appeals to some values better than urban living does and profit is not a factor;

D 13. Urbanites who come to the country and build nice houses and leave the city would tend to fit which of these descriptive categories: (a) cosmopolitan; (b) educated; (c) conservative; (d) all of these; (e) none of these.

A 14. The 'spaceship earth' mentality, which ~~realizes that~~ perceives the planet as a system, and resources ~~with~~ limits is essentially: (a) holistic; (b) atomistic; (c) utilitarian; (d) deontological.

C 15. The postulate of science which affirms that science is open-minded says that: (a) nothing is self-evident; (b) nature is orderly and regular; (c) truth is relative; (d) man is part of the natural world.

Short Answer (10 percent)

1. (5 points) Why can't science answer all the questions that are asked of it? (A few words would suffice)

Science requires measurement. If a question can't be quantified, science can't answer it.

2. (5 points) A scientific sample needs to be 'accurate' and 'adequate', meaning ~~overall that it must~~ be representative. What characteristics of the population (or 'universe') from which a sample is drawn would determine whether the sample could be 'small' or would need to be 'large?' (Again, a few words would do the job)

Is the population homogeneous or heterogeneous?

"Population" and "universe" are ~~synonyms~~ different words for the same thing.

One absence on evaluation day

– 29 responses

COURSE EVALUATION

- Agricultural Economics/Rural Sociology 110 -
SOCIO-ECONOMIC ISSUES IN AGRICULTURE

WINTER 1991

PLEASE EVALUATE EACH OF THE FOLLOWING ITEMS SEPARATELY

1. INSTRUCTOR: CHARACTERISTICS OF THE INSTRUCTOR WHICH:

   (a) Affect the course favorably:

   (b) Affect the course unfavorably:

   (c) Additional comments/suggestions: 3.69

   (d) Grade assigned to INSTRUCTOR: A B C D E

2. COURSE CONTENT: ASPECTS OF THE SUBJECT MATTER WHICH:

   (a) Were most appropriate for students of this subject:

   (b) Were least appropriate for students of this subject:

   (c) You think should be left as they are:

   (d) Additional comments/suggestions: 3.28

   (e) Grade assigned to COURSE CONTENT (Subject Matter): A B C D E

3. EXAMINATIONS AND GRADING: CHARACTERISTICS WHICH:

   (a) Aided the learning process for you:

   (b) Hindered the learning process for you:

   (c) Your reaction to take-home essay portions of exams?

   (d) Additional comments/suggestions: 3.21

   (e) Grade assigned (separately) to - EXAMINATIONS: A B C D E

   GRADING: A B C D E

(More on back) 3.36

4. PLEASE GIVE ME YOUR JUDGMENT ABOUT ROLE ACTIVITIES:

(a) Mountain Terrorist: Grade: A B C D E Keep?____;Delete____

(b) Chatham River: Grade: A B C D E Keep?____;Delete____

(c) Curriculum Revision: Grade: A B C D E Keep?____;Delete____

(d) Lost at Sea: Grade: A B C D E Keep?____;Delete____

(e) Kesterson Water Board Grade: A B C D E Keep?____;Delete____

5. PLEASE GIVE ME YOUR JUDGMENT ABOUT TOPICAL AREAS (Movies rated in 6, below):

(a) Century of Change: 1880-1980: A B C D E Keep?____;Delete____

(b) Adoption of Innovation: A B C D E Keep?____;Delete____

(c) Impact of Technology: A B C D E Keep?____;Delete____

(d) Change and Cultural Lag: A B C D E Keep?____;Delete____

(e) Kesterson and Pollution: A B C D E Keep?____;Delete____

(f) Food Safety issues A B C D E Keep?____;Delete____

(g) Animal Rights/Welfare A B C D E Keep?____;Delete____

(h) Introductory Ethics A B C D E Keep?____;Delete____

6. PLEASE RATE MOVIES AND TAPES FOR THEIR VALUE TO THE COURSE:

(a) Philosophers Speak (Ethics) A B C D E Keep?____;Delete____

(b) Seeds of Survival (Values) A B C D E Keep?____;Delete____

(c) Power and the Land (Values) A B C D E Keep?____;Delete____

(d) Lord and Father (Value change) A B C D E Keep?____;Delete____

(e) Desert Doesn't Bloom (Plution) A B C D E Keep?____;Delete____

(f) Farming With Nature (Choices?) A B C D E Keep?____;Delete____

(g) Organic Farming (Choices?) A B C D E Keep?____;Delete____

(h) Merchants of Grain (Conduct) A B C D E Keep?____;Delete____

(i) Seeds of Revolution (Conduct) A B C D E Keep?____;Delete____

7. SHOULD THIS COURSE BE DEVELOPED TO EXPLAIN AGRICULTURE TO A CAMPUS-WIDE AUDIENCE? Yes 86%; No 14%

8. AGRICULTURE NEEDS 83% DOES NOT NEED 17% ANY CAMPUS-WIDE APPRECIATION

9. WHAT WILL YOU SAY TO OTHERS WHO ASK YOU ABOUT TAKING THIS COURSE?

(Comments were all quite positive — 'instructive', 'thought-provoking' (End) etc.)